

A network diagram with various sized grey nodes connected by dotted lines. A thick blue dotted line curves across the image. A dark blue rectangular box is positioned on the left side.

Deutsche WindGuard

Offshore

Deutsche WindGuard – Basics

- Start of business: December 2000
- Number of employees: 180
- Highly qualified staff
(physicists, engineers, technicians)
- Pure service provider
- Active on a global scope
- Offices in Varel, Berlin, Bremerhaven, Elsfleth, Norden, Gelnhäusen, Springfield (VA, USA), Beijing (China) and Chennai (India)







Guaranteed Quality

Deutsche WindGuard

Deutsche WindGuard GmbH	Inspection Body Type C acc. to DIN EN ISO/IEC 17020 ISO 45001	 
Deutsche WindGuard Consulting GmbH	Testing & Calibration Laboratory acc. to DIN EN ISO/IEC 17025 ISO 45001	     
Deutsche WindGuard Wind Tunnel Services GmbH	Calibration Laboratory acc. to DIN EN ISO/IEC 17025 ISO 45001	   
Deutsche WindGuard Offshore GmbH	Certified Safety Training acc. to GWO BST und ISO 9001 ISO 45001	    
Deutsche WindGuard Inspection GmbH	Inspection Body Type A acc. to DIN EN ISO/IEC 17020 ISO 45001	 

WindGuard Certification

WindGuard Certification GmbH	Testing Laboratory & Certification Body acc. to DIN EN ISO/IEC 17025 und DIN EN ISO/IEC 17065 ISO 45001	   
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All accreditations and certifications apply only for the scope which is shown in the attachment of each certificate.

Measurement



Consulting



Offshore



Inspection & Technical Management



Certification



Site Assessment



Wind tunnel Center





- **DWG's specific offshore division was set-up in 2010**
- **Core personnel has been strongly involved in the German offshore market since the early beginning**
- **Geographic scope of provided services: Europe, Taiwan, India, China**
- **Service portfolio structured based on the following areas:**
 - Wind & Marine Engineering
 - Inspection & Quality Assurance
 - Project support
 - Technical Rating & Verification



Onshore. Offshore. Worldwide.

Wind & Marine Engineering

- **Integral Load Assessment**

(e.g. Bard Offshore 1, Butendiek, Galloper, Merkur, BorkumWest2, Nordergründe, Wikinger)

- **Structural Design & Analysis**

(e.g. Bard Offshore 1, Nordsee 2+3, Galloper, GT I, GuanYin)

- **Technical Specification of the WTG**

(e.g. Merkur, Xian Shui)

- **Offshore Energy Yield Assessment**

For more than 14 GW of capacity

- **Calculation of Availability / Loss Calculations**

- **Wind Farm Layout**

(e.g. Nordsee 2+3, Borkum West)



Wind & Marine Engineering

- Involved in 75 % of the German OWPs in operation and under construction

Technical Rating and Verification

- **Technical Due Diligence**
(e.g. GT I, Butendiek, XianShui, Merkur)
- **Technical Contract Specification**
(e.g. GT I, Merkur, Baltic II)
- **Risk Assessment**
(e.g. GT I, Xian Shui)
- **Power Curve Measurement Offshore**
 - For 21 OWPs
 - At the moment 8 measurement campaigns are running offshore utilising eithernacelle LiDAR, nacelle LiDAR in combination with a met mast or relative power curve measurement



Technical Rating and Verification

- Holistic inhouse know how covering all technical aspects of a Offshore project



DEUTSCHE
WINDGUARD

Thank you for your time and attention!

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